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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : A24D 1/00, A24F 13/00, A24D 1/02		A3	(11) International Publication Number: WO 99/53778 (43) International Publication Date: 28 October 1999 (28.10.99)
(21) International Application Number: PCT/CA99/00334 (22) International Filing Date: 16 April 1999 (16.04.99) (30) Priority Data: 09/061,222 16 April 1998 (16.04.98) US (71) Applicant: ROTHMANS, BENSON & HEDGES INC. [CA/CA]; 1500 Don Mills Road, North York, Ontario M3B 3L1 (CA). (72) Inventors: BOWEN, Larry; R.R. #2, Orangeville, Ontario L9W 2Y9 (CA). SNAIDR, Stanislav, M.; 4155 Sharonton Court, Mississauga, Ontario L5L 1Y9 (CA). BECKER, E., Robert; 808 Maple Glen Lane, Wayne, PA 19087 (US). BRACKMANN, Warren, A.; R.R. #1, Box 137, Highway 54 and J, Collins, MO 64738 (US). (74) Agent: WOODLEY, John, H.; Sim & McBurney, 6th floor, 330 University Avenue, Toronto, Ontario M5G 1R7 (CA).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments. (88) Date of publication of the international search report: 6 January 2000 (06.01.00)	
(54) Title: CIGARETTE SIDESTREAM SMOKE TREATMENT MATERIAL			
(57) Abstract <p>A cigarette sidestream smoke treatment material made from a sheet of non-combustible active components provides a porous structure capable of treating sidestream smoke. The treatment material, as used in combination with a cigarette, provides a low sidestream smoke emitting cigarette unit. The material has a porosity which encourages a conventional free-burn rate of a conventional cigarette. The material may comprise a sorbent capable of sorbing components of the sidestream smoke, and an oxygen storage component which releases oxygen at free-burn rate temperatures to ensure that conventional free-burn rate is maintained and to enhance the oxidation treatment of the adsorbed non-aqueous components. Preferably, an oxidation catalyst is included in the material and most desirably the oxygen storage component may also function as the oxidation catalyst. Particularly preferred materials which perform the dual function are oxides of cerium.</p>			

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INTERNATIONAL SEARCH REPORT

Internat. Application No

PCT/CA 99/00334

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 A24D1/00 A24F13/00 A24D1/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 A24D A24F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 98 16125 A (BOWEN LARRY ;ROTHMANS BENSON & HEDGES (CA); SNAIDR STANISLAV M (CA) 23 April 1998 (1998-04-23) page 32, line 21 -page 33, line 2; claims 1,24,28,29; figures 1-10,13 ---	1-17, 39-52, 109
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Y	---	2
Y	US 5 540 242 A (CHAO LI-CHUNG ET AL) 30 July 1996 (1996-07-30) column 15, line 3 ---	2
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

26 October 1999

Date of mailing of the international search report

10.11.99

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INTERNATIONAL SEARCH REPORT

Internatio	Application No
PCT/CA 99/00334	

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 251 254 A (KIMBERLY CLARK CO) 7 January 1988 (1988-01-07) column 7, paragraph 1; figure 1 column 9, line 25 - line 32 ---	63-66
A	EP 0 386 884 A (PHILIP MORRIS) 12 September 1990 (1990-09-12) page 6; figure 1; example 1 ---	1,2
A	US 4 622 983 A (MATHEWS JOHN H ET AL) 18 November 1986 (1986-11-18) claim 3 ---	1
A	US 5 386 838 A (QUINCY III ROGER B ET AL) 7 February 1995 (1995-02-07) claims 1,9,31 ---	43-46
A	US 4 639 432 A (HOLT ANDREW ET AL) 27 January 1987 (1987-01-27) claims 1-7 ---	43-45
A	US 4 182 348 A (KAUSCH ERWIN ET AL) 8 January 1980 (1980-01-08) abstract -----	43-45

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA 99/00334

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

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3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-42, 57-109

Cigarette unit with non combustible material with oxygen storage component

2. Claims: 43-56

Cigarette unit with material comprising an oxidation catalyst

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 99/00334

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